

KLEMENT'YEV, N.M., inzh.

Study of a friction coefficient dependant on the temperature
of the contact. Trudy Khab. IIT no.16:250-262 '64

(MIRA 18:2)

KLEMENT'YEV, N.P., uchitel'

Motion pictures in the biology class. Biol.v shkole no.5:
54-55 S-0 '59. (MIRA 13:8)

1. Demikhovskaya srednyaya shkola Orekhovo-Zuyevskogo rayona
Moskovskoy oblasti.

(Motion pictures in education)
(Biology--Study and teaching)

KLEVENT'YEV, N.P., uchitel'

First lessons in studying arthropoda; sixth grade. Biol. v shkole
no.2:18-22 Mr-Apr '61. (MIRA 14:3)

1. Demikhovskaya srednyaya shkola Orekhova-Zuyevskogo rayona Moskovskoy
oblasti.
(Entomology—Study and teaching)

KLEMENT'YEV, SERGEY DMITRIYEVICH

DECEASED

SEE ILC

ELECTRONICS/ REMOTE CONTROL

1K

13

Production of hydrochloric acid and magnesium oxide from waste liquor of cornaline extraction. A. G. Bergman, V. A. Klement'ev and E. B. Pavlov. Trans. State Inst. Applied Chem. (U. S. S. R.) 1955, No. 16, 3. 1A.—Preliminary experiments with the production of HCl and MgO from waste liquor (22-4% $MgCl_2$), obtained in the extraction of KCl from carnallite, rendered in 90% decomposition of 100 parts of waste liquor and 10 parts of MgO. A mixt. of 100 parts of waste liquor and 10 parts of MgO after settling was dried at 120-210°, then crushed to 1 cm. after setting was dried at 120-210° and passing in stream and decomposed by heating at 810° and passing in stream and a reconstituted of Cl₂. The reaction chamber was a cast-Fe cylinder. Chas. Klement'ev

ASO-55-6 DETAILING LITERATURE CLASSIFICATION

[illegible]

KLEMENT' YEV. V. A.

CA

The systems: sodium chloride-magnesium chloride-water, and potassium chloride-magnesium chloride-water (isotherms 230° and 240°). V. A. Klement' *Trudy Akad. Nauk SSSR, Ser. Khim. Nauk*, No. 11, 812, Akad. Nauk SSSR, 1957, No. 1, 24 (1958). The isotherms were observed in an adiabatic calorimeter with a gas temp. regulator and with a lig. disconnect. The adiab. were read by read. clocking in sealed tubes. The 230° and the 240° isotherms for NaCl-MgCl₂ and KCl-MgCl₂ are analogous to those of lower temps. The eutectic points are not observed. The same isotherms for the system KCl-MgCl₂ differ considerably from the 230° and from the lower-temp. isotherms. Especially in the 230° isotherm beginning with 21.00% KCl and 22.50% MgCl₂ an increase in MgCl₂ causes almost no change in KCl. When MgCl₂ decreases the adiab. of water decreases. The 230° eutectic point is composed of: 21.00% KCl, 22.50% MgCl₂, and 18.50% H₂O. The 230° isotherm has intermediate characteristics between the 230° and the 240° isotherms. At its eutectic point the comp. is: 10.00% KCl and 45.00% MgCl₂. Because of the high viscosity of the adiab. at points corresponding to the liquidus line connecting the 230° and the 240° eutectic points with the MgCl₂ axis in KCl-MgCl₂-H₂O these study, especially for solid phases, is very limited. N. K. Klement' considers that a solid phase, gradually changing into MgCl₂·2H₂O, corresponds to the liquidus line. MgCl₂·6H₂O hydrates 60% at 180° and 64% at 240°, whereas carnallite hydrates 6.27% and 9.21% under the same conditions. With increasing temp. it changes, slightly hydrating (14.33%) into the anhydrous state, while MgCl₂·6H₂O loses 34%, hydrating 27.9%. Drying KCl + MgCl₂·6H₂O at an increasing temp. gave 100% dehydration with 20.00% hydrating. In this fact K. Klement' is of the opinion of solid adiab. in the system KCl-MgCl₂-H₂O above 187.5°.

V. A. Klement

SOV/137-58-7-14547

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 86 (USSR)

AUTHOR: Klement'yev, V.A.

TITLE: A Comparative Method of Determining the Activity of a Magnesite Mix in Chlorination (Sravnitel'nyy metod opredeleniya aktivnosti magnezitovoy shikhty pri khlorirovanii)

PERIODICAL: Tr. Vses. n.-i. alyumin.-magn. in-ta, 1957, Nr 40, pp 353-357

ABSTRACT: A comparative method of determining the activity of a mix has been developed. The criterion of activity is the degree of conversion of MgO into $MgCl_2$ when Cl_2 is transmitted through the mix at $500^{\circ}C$, making for intensive chlorination without fusion of the Mg . The end of the process is determined by the appearance of free Cl_2 in the exiting gases. The design of laboratory equipment and a method for conducting the tests and for calculation of the experimental results are presented.

L.P.

1. Magnesium alloys--Halogenation 2. Magnesium alloys
--Chemical reactions 3. Laboratory equipment--Design

Card 1/1

KLEMENT'YEV, V.O., inzhener.

Mechanizing the work of preparing and delivering hot asphalt-bitumen waterproofing. Mekh.stroi. 13 no.9:22-24 J1 '56.
(Waterproofing) (Bituminous materials) (MLA 9:11)

ZUBANOV, Mikhail Prokof'yevich, dotsent, kand.tekhn.nauk; KLEMENT'YEV,
Y.G., inzh., retsentsent; PODBORSKIY, I.Ye., inzh., FGA.; DUBUSOVA,
G.A., red.isd-va; SOKOLOVA, L.V., tekhn.red.

[Vibrators for compacting concrete mixes and soils] Vibratsionnye
mashiny dlia uplotneniia betonnykh smesei i grunta. Moskva, Gos.
nauchno-tekhn.isd-vo mashinostroit.lit-ry, 1959. 218 p.

(MIRA 12:3)

(Vibrators)

(Concrete)

(Soil stabilization)

KLEMENT'YEV, Y.O., inzh.; ESTRIN, M.I., kand.tekhn.nauk

Foreign machinery for constructing cement-concrete pavements. Stroil.
1 dor.mashinostr. 5 no.3:36-40 Nr '60. (MIRA 13:6)
(Road machinery)

KLEMENT'YEV, V.O., inzh.; SHALMAN, D.A., kand.tekhn.nauk; ESTRIN, M.I., kand.
tekhn.nauk

Universal slope planers. Stroi. i dor. mash. 6 no.2:8-10 P '61,
(MIRA 14:5)

(Road machinery)

ESTRIN, M.I., kand.tekhn.nauk; KLEMENT'YEV, V.G., inzh.

Designing equipment for laying cement-concrete pavements. Stroi.i
dor.mash. 6 no.4:15-17 Ap '61. (MIRA 14:3)
(Pavements, Concrete)

GUSEV, L.M.; KLEMENT'YEV, V.O., inzh., retsengent; SOBOLEV, N.V.,
kand. tekhn. nauk, red.; BOCHAROVA, Ye.G., red. izd-va;
PETERSON, M.M., tekhn. red.; BARDINA, A.A., tekhn.red.

[Design of street-cleaning motortrucks] Raschet i kon-
struktsii podmetal'no-uborochnykh mashin. Moskva, Mash-
gis, 1963. 203 p. (MIRA 16:10)
(Street cleaning—Equipment and supplies)

ALIMENT'YEV, V.G., inzh.

Foreign multipurpose ambulatory for laying road materials. Strol. 1
for. mach. 10 no. 7:20-22. 01 185.

(MIRA 18:8)

9.2576(1055, 1154, 1163, 1534)

32672

S/200/61/000/012/002/002
D201/D301

AUTHOR: Klement'yev, V.M.

TITLE: An open (disc) resonator

PERIODICAL: Akademiya nauk SSSR, Sibirskoye otdeleniye. Izvestiya,
no. 12, 1961, 98-101

TEXT: The author reports on an investigation into the dependence of radiation from a disc resonator on the disc shape, on its coupling with the waveguide section, on the spacing L between discs, of a diffraction resonator, together with the distribution of resonance of different modes of oscillations, as depending on disc spacing and coupling. The value of Q at various diaphragms was also measured. The resonator used had circular discs 100 mm in diameter, i.e. of the order of 12λ , coupled by an inductive diaphragm to a rectangular waveguide. Q was found to remain high, although decreasing slightly, with increasing coupling. The distribution density of oscillations of the higher modes was found to be less than that of lower modes and decreasing with coupling. It is easier,

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D201/D301

An open (disc) resonator

therefore, to produce a higher mode oscillation. The number of modes is independent of coupling. Q was measured by the reflected wave method, with an additional feature of an automatic pen-recorder of the type $\mu 16-\Phi 16$ (N16-F16) and of a horizontal sweep oscillator type $HP \Pi K -2$ (NGPK-2), with controlled sweep speed, being added to the arrangement. The effect of disc shape was investigated by using square plates of equal areas. The Q obtained with square-shaped plates was of the order of 5000. If a disc resonator is considered as a co-axial line, then for a given coupling and distances between the discs, a matching condition between two transmission lines (rectangular waveguide and co-axial line) may be obtained with radial propagation of waves. Assuming that homogeneous cylindrical waves can be propagated in the resonator, for which Eq.(2)

$$\frac{\partial}{\partial \varphi} = \frac{\partial}{\partial z} = 0 \text{ and } H_r = E_r = 0 \text{ with its solution Eq. (3)}$$

$E_z = A H_0^{(1)}(j\gamma r) + B I_0(j\gamma r)$, where $H_0^{(1)}(j\gamma r)$ is the Hankel function of an imaginary argument (the Macdonald function) and $I_0(j\gamma r)$ - the modified Card 2/4

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S/200/61/000/012/002/002

D201/D301

An open (disc) resonator

Bessel function of zero order, then the characteristic impedance will be real for the solution with the Macdonald equation, resulting in the wave being propagated with imaginary for the solution with a modified Bessel function which corresponds to the absence of waves being propagated. It seems that for an exact solution these cases correspond to various distances between the discs. To investigate the above, diaphragms were constructed, with coupling irises d having diameters 2.1, 3.5, and 7.2 mm. The experiment has shown that by increasing coupling from $L < \frac{\lambda_0}{2}$,

the radiation increases and reaches a maximum at $d = 7.2$ mm. This shows that a disc resonator may be excited by diffraction of waves from the primary region, formed by two discs spaced by $L < \frac{\lambda_0}{2}$ into the secondary

region (resonator), formed by the middle (second) and the third disc. This resonator has been called a diffraction resonator. It is stated that such a tuning arrangement may be used for excitation of delay devices. There are 2 tables, 4 figures and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads

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32672

S/200/61/000/012/002/002
D201/D301

An open (disc) resonator

as follows: A.L. Schawlow and C.H. Townes, Infra-red and Optical Masers,
Phys. Rev., 112, no. 6, (1958).

ASSOCIATION: Institut radiofiziki i elektroniki Sibirskogo otdeleniya
AN SSSR, Novosibirsk (Institute of Radio-Physics and
Electronics of the Siberian Branch AS USSR, Novosibirsk)

Card 4/4

ENT(1) EPF(n)-2/ENG(m)/EP.(w)-2/T Pz-6 Po-4 Pab-10/P1-4 IJP(c)

AT

APSD12340

UR/0288/65/000/001/0091/0095

AUTHOR: Klement'yev, V. M.

TITLE: Discharge within a large hollow cathode

INSTR: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya tekhnicheskikh nauk, no. 1, 1965, 91-95

TOPIC TAGS: high electron density discharge, hollow cathode discharge, plasma reflection

ABSTRACT: The study of the properties of plasma layers above metallic surfaces when the dimensions of the layer are considerably larger than the electromagnetic wavelength is of great practical interest (see L. S. Tsvilov, Proceedings of the IRE, 1961, vol. 49, no. 12, p. 1831). Most convenient for such purposes is discharge within hollow cylindrical cathodes. The aim of the present paper was to study, within large-radius hollow cathodes, a uniform (over the cross section) plasma with electron densities n_e in excess of 10^{11} cm^{-3} , and to study its reflection in the eight-millimeter wave range. The description of the experimental setup is followed by a presentation of the results and their interpretation. Tests

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L 53683-65

ACCESSION NR: AP5012340

2

on the discharge within a 94-mm diameter hollow cathode showed that: 1) in the 0.5-5 mm Hg range of neon pressure and at discharge currents between 1.5 and 2.5 A, one obtains, above the cathode end, a uniform plasma with electron densities of $\sim 3 \cdot 10^{13} \text{ cm}^{-3}$; 2) the most convenient operating region is with 1-4 mm Hg of neon pressure; 3) the plasma uniformity is the result of a strong interaction of the regions with negative glow; and 4) the volt-ampere characteristics at 1-4 mm Hg of neon and 0.1-0.4 A discharge current show negative slopes. "The author thanks L. A. Kolosova for her help during the study." Orig. art. has: 1 formula and 4 figures.

ASSOCIATION: Institut radiofiziki i elektroniki Sibirskogo otdeleniya AN SSSR
Novosibirsk (Institute of Radiophysics and Electronics, Siberian Division, AN SSSR)

RECEIVED: 05Oct63

ENCL: 00

SUB CODE: EC, ME

NR REF SOV: 001

OTHER: 004

Card

2/2

1. 44442-65 EWI(1)/EPP(n)-2/BYG(m)/EFA(w)-1/T Pz-6/Pat-10 IJP(e) AT
 ACCESSION NR: AP5011668 UR/0120/65/000/002/0030/0033

AUTHOR: Klement'yev, V. M.

TITLE: Large hollow cathode having a uniform discharge

SOURCE: Pribery i tekhnika eksperimenta, no. 2, 1965, 30-33

TOPIC TAGS: cathode, hollow cathode

ABSTRACT: The results are reported of an experimental study of the discharge in large cylindrical hollow cathodes (see Fig. 1 of Enclosure) with a uniform plasma layer over the cathode's flat end. The uniform discharge is achieved by either drilling holes in the copper cathode disk or placing a large-mesh grid 5 mm above the cathode disk. The disk diameter was 135 mm; cylinder height, 30 mm; pressures, 1-5 torr; current, 1-2 amp. Both designs ensure a fairly uniform plasma distribution over the cathode surface which was proven by photographing the discharge. "The author wishes to thank S. N. Bageyev and S. I. Lavrukhina for their help."
 Orig. art has: 5 figures. [03]

Card 1/3

L 48807-65

ACCESSION NR: AP5011868

ASSOCIATION: Institut radiofiziki i elektroniki SO AN SSSR (Institute of
Radiophysics and Electronics, SO AN SSSR)

SUBMITTED: 15Feb64

ENCL: 01

SUB CODE: 1.1

NO REP SOV: 000

OTHER: 002

ATT PRESS: 4003

Card 2/3

L 4214-66

ACC NR: AP5027037

The plates (3 x 10 cm) were sputtered with a 13-layer dielectric coating (ZnS and MgF₂). The mirror alignment was such that the cylinder generators were mutually perpendicular. The distance between mirrors was 3.8 m (their radius of curvature was also ~3.8 m). Generation occurred at 6328 Å in a cylinder 3.5 m long and 10 mm in diameter and also when the mirrors were rotated by ~40°. Further rotation of the mirrors disrupted the generation. Only axial modes were set up, although transverse modes could be set up in an identical resonator with spherical mirrors of the same curvature radius. Orig. art. has: 3 figures. (YK)

SUB CODE: WC, OP/ SUBM DATE: 30sep64/ ORIG REF: 002/ OTH REF: 000/ ATD PRESS: 4/2/

Card 2/2 DP

L 36992-65 EWT(d)/EWT(1)/EEC-4/EEC(t)/EEC(b)-2/FCS(k) Pac-4/Pae-2/P1-4/
ACCESSION NR: AP5005355 PJ-4/P1-4 S/0109/65/010/002/0367/0370
JHB/WR

AUTHOR: Klement'yev, V. M.

50
8

TITLE: Directional radiation from a Fabry-Perot-type resonant system

SOURCE: Radiotekhnika i elektronika, v. 10, no. 2, 1965, 367-370

TOPIC TAGS: millimeter wave, submillimeter wave, directional antenna 25B

ABSTRACT: This experiment continues W. Culshaw's work on millimeter-wave radiation by Fabry-Perot-type gratings (IRE Trans., MTT-8, 1960, no. 2, 182). Two flat circular mirrors of radius a ($2a = 93$ mm) were located parallel to each other at distance L . One mirror was made from copper and had a feeder slit in its center. The second — radiating — mirror was represented by a semitransparent copper film, a copper-covered glass with a number of equidistant slits, a similar glass with equidistant circular 1-mm slits spaced at 5 mm, and a zone plate. At $\lambda = 8$ mm, directional patterns were measured

Cord 1/2

L 36992-65

ACCESSION NR: AP5005355

with TEM_{00q} and TEM_{01q} modes and various $P \propto a^2/L\lambda$. The sharpest patterns (about 1.2°) were obtained with TEM_{00q} mode; the antenna efficiency exceeded 50%. Orig. art. has: 4 figures and 3 formulas. [03]

ASSOCIATION: none

SUBMITTED: 01Aug62

ENCL: 00

SUB CODE: EC, DC

NO REF SOV: 003

OTHER: 002

ATD PRESS: 3222

me
Card 2/2

EWG(R)/FBD/EWG(r)/ENT(1)/ENT(k)-1/ENT(ENT(LE...EWG(R)/EVA(B)/
 Po-4/Po-4/Po-4/Pf-4/Peb/Pi-4/11-4 2 11-1 11-1
 APSC13852 0510956/0957

AUTHOR: Klement'yev, V. M.; Kolomnikov, Yu. D.

TITLE: Laser with cylindrical mirrors

SOURCE: Radiotekhnika i elektronika, v. 10, no. 5, 1965, 956-957

TOPIC TAGS: neon hydrogen laser, cylindrical mirror, hollow cathode discharge, laser

ABSTRACT: A Ne-H₂ laser with hollow-cathode discharge and a resonator formed by cylindrical mirrors is described (see Fig. 1 of the Enclosure). The system of mirrors possesses properties similar to those of spherical mirrors. Noncritical tuning properties are preserved when one of the mirrors is turned 45—50° about the axis of the tube. Emission is also possible when the mirror generatrices are parallel, although this requires precise tuning. The paths of the noncoplanar beams in the system are shown in Fig. 2. The radius of curvature of the 35 x 40-mm cylindrical mirrors is 35 cm. The hollow cathode consists of two joined stainless-steel tubes with an 11-mm inner diameter and a total length of 150 mm. The total length of the discharge tube is 29 cm. The discharge is sustained in a pulsed mode in

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L 53821-65

ACCESSION NR: AP5013352

order to avoid overheating effects. The laser generates at 11143 Å and 11177 Å. Distinctive types of oscillation are produced by diaphragming. The simplest oscillation types are in the form of two crossed lines. When the mirrors are turned perpendicularly to each other, these lines are mutually perpendicular. More complex types of oscillation have an additional series of lines parallel to the main lines. Orig. art. has: 3 figures. (JR)

ASSOCIATION: none

SUBMITTED: 17Feb64

ENCL: 01

SUB CODE: EC

NO REF SOV: 001

OTHER: 000

ATD PRESS: 4022

Card 2/3

L 55621-05

ACCESSION NR: AP5013352

ENCLOSURE: 01

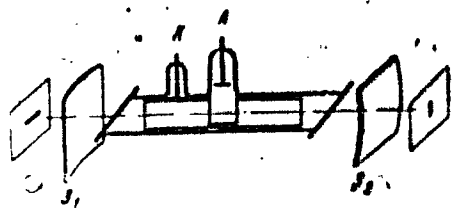


Fig. 1. Mirror arrangement of the Ne-H₂ laser

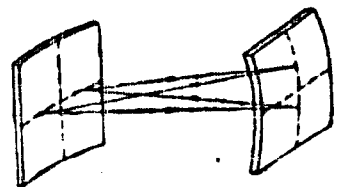


Fig. 2. Paths of noncoplanar laser beams

Am
Card 3/3

L 16172-66 ENT(d)/ENT(1)/EEG(k)=2 00/W3-2/WR

ACC NR: AP6003559

SOURCE CODE: UR/0109/66/011/001/0139/6141

AUTHOR: Klement'yev, V. M.

ORG: none

21,49,95 4
TITLE: Reflection of electromagnetic waves by a metal mirror covered with a plasma layer

SOURCE: Radiotekhnika i elektronika, v. 11, no. 1, 1966, 139-141

TOPIC TAGS: electromagnetic wave, plasma physics

25B
ABSTRACT: Reflection of electromagnetic waves by a plasma-covered metal mirror (L. S. Taylor, Proc. IRE, 1961, 49, 12, 1831) is experimentally investigated at a wavelength of 8.1 mm in a device having a hollow cathode whose dimensions considerably exceed the wavelength. The effect of the nonuniform plasma layer covering the end of the hollow cathode upon the reflection and absorption of electromagnetic waves was studied. The method of study was reduced to determining the Q-factor of a Fabry-Perot-type resonator whose mirror radius was $a \gg \lambda$; a TEM_{01q} mode was excited in the resonator, and the latter's Q-factor was about 10000.

Card 1/2

UDC: 621.371.18

L 16422-66

ACC NR: AP6003559

Plots of relative Q-factor vs. discharge current for 0.5, 1, and 2-torr neon pressures are presented; within the current range of 0.5–1.5 amp, a considerable drop of Q-factor was observed. The study shows that, with a certain distribution of plasma parameters within the layer covering the flat mirror and for pressures within 0.5–3 torr, a considerable absorption of electromagnetic waves ($\lambda = 8.1$ mm) occurs. Orig. art. has: 2 figures and 3 formulas. [03]

SUB CODE: 20, 09 / SUBM DATE: 08Mar65 / ORIG REF: 001 / OTH REF: 001.
ATD PRESS: 4205

Cord 2/2 SM

ACC NR: AP6013137 SOURCE CODE: UR/0057/66/036/004/0746/0748

AUTHOR: Klement'ev, V. M.

ORG: none

TITLE: Method for determining some plasma parameters in a Fabry-Perot type resonator

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 4, 1966, 746-748

TOPIC TAGS: plasma concentration, plasma decay, plasma oscillation

ABSTRACT: A method is presented for determining the electron concentration and rate of plasma formation in a Fabry-Perot type resonator by successive excitations of natural oscillations in the 8-mm range. The dimensions of the resonator are considerably larger than the wavelength and the resonator does not have side walls. These characteristics made it possible to place large plasma formations of arbitrary shape and arbitrary transverse dimensions between the resonator reflectors. Experimental determination of the electron concentration and the rate of formation can then be made by obtaining oscillograms representing a series of resonance peaks. The number of excited oscillations in a plasma layer is determined by the number of resonance peaks, and the average rate of plasma formation, by the distribution of these peaks. The method can be experimentally tested by the plasma formation in a hollow cathode. In the case of a pulsed regime, when both plasma formation and

Card 1/2

533.9.082

L 31130-66

ACC NR: AP6013132

decay occur, it is essential that the voltage pulse duration be longer than the time of plasma formation. Either of the processes is then determined by oscillographing simultaneously the voltage pulse and signals from the resonator. Orig. art. has: 2 figures.

[JR]

SUB CODE: 20/ SUBM DATE: 01Oct64/ ORIG REF: 001/ OTH REF: 002/ ATD PRESS:

4240

Cord 2/2 *rc*

L 47573-66 EEC(k)-1/EWP(k)/EWT(1)/EWT(m)/T/EWP(t)/EWT IJP(c) WJ/JP

ACC NR: AP6032450

SOURCE CODE: UR/0368/66/005/003/0388/0390

AUTHOR: Donin, V. I.; Klement'yev, V. M.; Chebotarev, V. P.

ORG: none

TITLE: A high-current argon laser

SOURCE: Zhurnal prikladnoy spektroskopii, v. 5, no. 3, 1966, 388-390

TOPIC TAGS: gas laser, argon laser, high intensity laser, laser r and d

ABSTRACT: A cw high-current argon laser which features a metallic discharge tube and cathode is described (see Fig. 1). The cathode was developed at the authors' Laboratory [probably at the Institute of Semiconductors, Novosibirsk] in the course of work on arc discharges in the hollow metallic tube in low-pressure saturated metal vapor. The discharge tube consists of various oxidized Duralumin disks, which are insulated from each other by rubber spacers and slots (total thickness 1 mm) and are cooled with ordinary (non-distilled) water. The cathode and discharge tube are arranged axially. The active length of discharge tube is 17.5 cm and its working diameter 2.5 mm. The tube is terminated with Brewster angle windows. The cavity consists of two spherical mirrors ($R \approx 1.3$ m) with multilayer dielectric coatings. The mirrors (92.4% and 99.1% reflective) are placed approximately 60 cm from each other. Laser action at discharge voltages of 125 v and currents of 45 amp was observed, although the cathode is capable of sustaining unlimited currents

Card 1/2

UDC: 621.375.9

L 47573-66

ACC NR: AP6032450

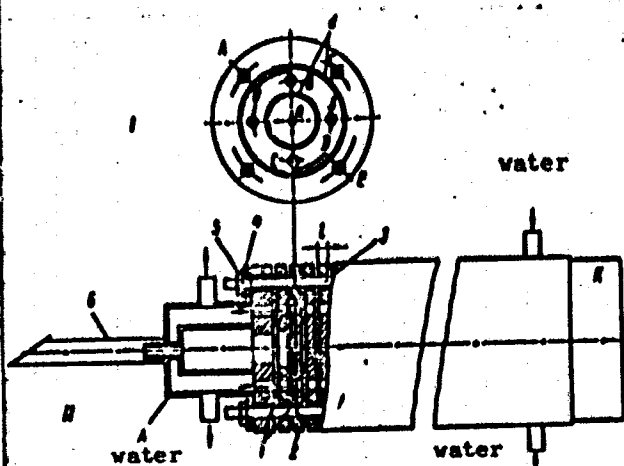


Fig. 1. Sketch of individual disks (I) and discharge tube (II)

a - Operating aperture;
b - cooling water inlet;
c - holes for tie bolts; d -
under rubber spacers; A -
anode; K - cathode; 1 - rubber
spacers; 2 - disks; 3 - tie
bolts with insulation; 4 -
insulating ring; 5 - tie bolt
nuts; 6 - glass tube with
output windows.

(current densities of approximately 1000 amp/cm^2 were attained). The argon gas pressure was 0.2—0.5 mm Hg. The threshold current for the strongest Ar II line (4880 \AA) was 7 amp. The maximum output power at 45 amp was about one-half watt. The effect of an external magnetic field on the output power was investigated at a discharge current of 20 amp. Suitable selection of the field resulted in a six-to sevenfold increase in the output power. Orig. art. has: 2 figures. - [YK]

SUB CODE: 20/ SUBM DATE: 18Jan66/ ORIG REF: 001/ OTH REF: 001/ ATD PRESS: 5093
Card 2/2

ACC NR: AP7004647

SOURCE CODE: UR/0288/66/000/003/0151/0154

AUTHOR: Klement'yev, V. M.

ORG: Institute of Semiconductor Physics, Siberian Branch, AN SSSR (Institut fiziki poluprovodnikov sibirskogo otdeleniya AN SSSR)

TITLE: Open resonator for millimeter waves

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya tekhnicheskikh nauk, no. 3, 1966, 151-154

TOPIC TAGS: resonator, millimeter wave

ABSTRACT: An attempt is made to study the behavior of an open resonator with cylindrical mirrors (see Fig. 1) using the method of images when $L > \lambda$, and $a \gg \lambda$, and when losses in mirrors are greater than diffraction losses. Theoretical

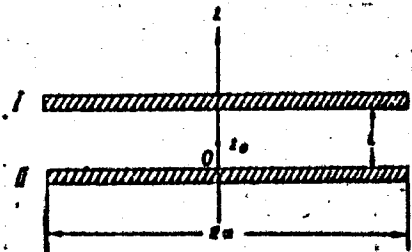


Fig. 1. Febry-Perot-type open resonator

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UDC: 621.372.413

ACC NR: AP7004647

results are favorably compared to experimental values. Experimental results of fringe radiation are also given. The study is reduced to analysis of a beam of plane waves confined to a cone whose center is coincident with the z-axis and whose aperture angle is $\theta < \theta_0$ ($\theta_0 \approx \lambda/2a$). The beam analysis is based on the duality theorem. The reflecting mirror may be considered as an aperture of an absorbing screen and, multiple reflection as multiple passage of a beam through a series of apertures. Field distribution in the beam cross-section may be accounted for by assigning a specific type of amplitude characteristic function. Phase distribution is accounted for by the mirror reflection coefficient. Orig. art. has: 14 formulas, and 3 figures.

SUB CODE: 20/ SUBM DATE: 03Apr65/ OTH REF: 004/ SOV REF: 006/

Card 2/2

KLEMENT'YEV, Y.N.

Improving terminal switches for cranes. Besop.truda v
prom. 3 no.12:30 D '59. (MIRA 13:4)
(Cranes, derricks, etc.—Safety appliances)

82517

S/020/60/133/04/10/031
B019/B060

24.6720

AUTHORS: Berlovich, B. Ye., Klement'yev, V. N., Krasnov, L. V.,
Nikitin, M. K., Yureik, I.

TITLE: New Isomeric States of Spherical Europium Nuclei With
Odd Mass Number *h*

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 4,
pp. 789-792

TEXT: By way of introduction the authors refer to the investigations carried out by B. S. Dsholepov and A. A. Bashilov (Ref. 1) into the level schemes of Eu^{147} -, Eu^{149} -, and Eu^{151} nuclei, that were determined by the spectra of internal conversion electrons and of photoelectrons. The principal part of these level schemes was studied by the authors with the coincidence method, and moreover, the lifetimes of the isomeric levels were found to be 624 kev (Eu^{147}), 496 kev (Eu^{149}), and 197 kev (Eu^{151}). A short description is given of the experimental setup consisting in the main of two scintillation spectrometers. The results are shown in three diagrams (Figs. 1, 2, and 3) in the form of the decay curves of the above-mentioned

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New Isomeric States of Spherical Europium Nuclei
With Odd Mass NumberS/020/60/133/04/10/031
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three states as functions of the delay times, and the respective level schemes are explained. In the case of Eu^{147} , $7.8 \cdot 10^{-7}$ sec were measured for the half-lives of the 396-kev transition (M2), and $7.8 \cdot 10^{-6}$ sec for the 625-kev transition (E3). The corresponding values in Eu^{149} for the 346-kev transition (M2) and the 497-kev transition (E3) were $2.62 \cdot 10^{-6}$ sec and $5.24 \cdot 10^{-5}$ sec, respectively. $(5.8 \pm 0.3) \cdot 10^{-5}$ sec (175-kev transition, M2) are given for the half-life of the 197-kev state of the Eu^{151} nucleus, while a transition (E3) from 197-kev level to the ground state could not be established in this case. Table 1 gives the results of measurement found here for the three M2 transitions and the two E3 transitions. Details of these results are discussed and they are found to agree with the results given in a paper by V. S. Shpinel' on the variations in eigenstates. There are 3 figures, 1 table, and 8 references: 5 Soviet, 2 US, and 1 Danish.

ASSOCIATION: Fiziko-tehnicheskii institut Akademii nauk SSSR (Physico-technical Institute of the Academy of Sciences, USSR)

PRESENTED: March 10, 1960, by A. P. Ioffe, Academician

SUBMITTED: March 7, 1960

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S/048/61/025/002/003/016
B117/B212

AUTHORS: Berlovich, E. Ye., Klement'yev, V. N., Krasnov, L. V.,
Nikitin, M. K.

TITLE: Gamma radiation of Eu^{146}

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25,
no. 2, 1961, 207-211

TEXT: The present paper was read at the 11th Annual Conference on Nuclear Spectroscopy (Riga, January 25 to February 2, 1961). The authors have investigated gamma radiation caused by electron capture in Eu^{146} . The source was a gadolinium fraction that had been deposited chromatographically from a tantalum target. This target was bombarded with 660-Mev protons in a synchrocyclotron of the OIYaI (Joint Institute of Nuclear Research). The measurements have been made with a double coincidence scintillation spectrometer to one of whose branches a 100-channel pulse-height analyser of the type AN-100 (AI-100) had been connected. Photomultipliers of the type ФЭУ-14 (FEU-14) with 30 by 40 mm large NaI crystals were used. A number of gamma transitions which are produced during decay of Eu^{146} could be determined.

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Gamma radiation of Eu^{146} S/048/61/025/002/003/016
B117/B212

mined by means of this spectrometer. Energies and relative intensities of these transitions are summarized in a table. The gamma-ray intensity was determined by splitting up the spectrum according to its standard lines. The intensity of the 0.64-Mev gamma-ray quanta is, according to an estimation, almost equal to that of 0.74-Mev gamma rays. The error of analysis is about 30%. In order to avoid the summation of specially intense and coinciding quanta of 0.64 and 0.74 Mev, lead filters, 6 to 28 g cm⁻² thick, have been used to investigate the spectral region harder than 0.9 Mev. These tests confirmed a coincidence between quanta of 0.64 and 0.74 Mev (Ref. 1). Coincidences of 0.74-Mev quanta have been established with the following quanta: 0.64, 0.91, 1.07, 1.3, 1.5, 1.8, 2.1, and 2.4 Mev; also coincidences of 0.64-Mev quanta with those enumerated have been found, with the exception of 1.5 and 2.4 Mev. Besides, self-coincidences were observed which led to the assumption that a quantum with an energy of about 0.64 Mev is present. In addition, coincidences with various sections of the hard-spectrum range were investigated: 2.4, 2.1, 1.8, 1.5, 1.3, 1.1, and 0.9 Mev (Fig. 5). Based on the results obtained, the authors suggest a modified decay scheme for Eu^{146} (Fig. 6). According to the formula of Kameron, the decay energy from Eu^{146} to Sm^{146} amounts to 3350 kev while according to the

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Gamma radiation of Eu^{146}

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formula of Levi it is even 3700 kev (Ref. 4). Therefrom the conclusion may be drawn that newly introduced levels with energies of up to 3.5 Mev are present. Some of the transitions which occur in coincidences are probably individual components of the groups mentioned in the table (e.g., the 1.07-Mev line from the group with energies of 1.1 Mev). Gamma quanta with energies of 280 kev have been observed which coincide with 115-120-kev quanta. These gamma rays apparently originate from a Cd^{146} or Eu^{146} decay. G. M. Gorodinskiy is mentioned. There are 6 figures, 1 table, and 4 Soviet-bloc references.

ASSOCIATION: Fiziko-tekhnicheskii institut im. A. I. Ioffe Akademii nauk SSSR (Institute of Physics and Technology imeni A. I. Ioffe of the Academy of Sciences USSR)

Fig. 5

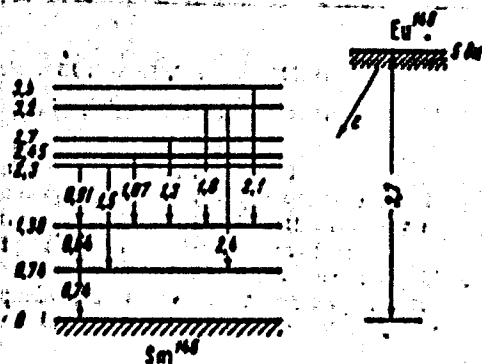
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E_γ , MeV	I_γ	E_γ , MeV	I_γ
0.64	~1	1.3 (1.28+1.31)	0.10
0.74	1.00	1.5 (1.45+1.56)	0.13
0.91	0.10	1.8	0.02
1.1 (1.07+1.17)	0.14	2.1 (1.94+2.06+2.19)	0.04
		2.4	0.01

Gamma radiation of Eu^{146}

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Fig. 6



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S/048/61/025/002/004/016
B117/B212

AUTHORS: Berlovich, Ye., Klement'yev, V. N., Krasnov, L. V.,
Nikitin, M. K.

TITLE: Study of the nuclear levels of Eu^{147} , Eu^{149} , and Eu^{151}

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25,
no. 2, 1961, 212-217

TEXT: The present paper was read at the 11th Annual Conference on Nuclear Spectroscopy (Riga, January 25 to February 2, 1961). The authors investigated level schemes of Eu^{147} , Eu^{149} , and Eu^{151} by using a double-coincidence scintillation spectrometer. Unit and method have been briefly described in Ref. 3. The radiation source was a gadolinium fraction that had been separated from a group of rare earths and had been formed in a tantalum target bombarded with 660-Mev protons in a synchrocyclotron of the OIYaI (Joint Institute of Nuclear Research). The following gamma quanta were determined for the gamma spectrum of Gd^{147} by means of the scintillation spectrometer: 230, 380 (370±396), 500, 750, 900, 1100, 1300, 1550, and 1750 Mev. For 230-keV gamma quanta prompt coincidences were established with the following

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quanta: 400, 550, 620, 770, 900, 1100, 1300, and 1550 kev; 1750-kev quanta did not coincide with those quanta enumerated. There are only X-rays in the coincidence spectrum with these gamma quanta. The delayed coincidences have also been investigated and coincidences of 370 and 930-kev quanta with 230, 400, and 625-kev quanta have been found. Coincidences of the same kind with gamma rays in an energy range of from 500-600 kev yielded the same quanta of 230, 400, and 625 kev. The coincidence spectrum with 930-kev quanta is brought as an example. The results obtained agree well with the decay scheme for Gd^{147} , as suggested in Ref. 1. Due to a complicated scheme and the presence of a large number of gamma transitions with energies close to each other, which could not be separated since the resolution of the spectrometer was not strong enough, it was not possible to verify the distribution of all gamma quanta as given in Ref. 1. The following gamma quanta have been established in the Gd^{149} spectrum: 150, 300, 350, 500, 790, and 940 kev. This is in agreement with data of Ref. 1. The 150-kev gamma quanta yielded prompt coincidences with 350, 520, and 790-kev quanta. In the delayed-coincidence spectrum for 150, 350, and 500-kev gamma quanta, there are 300-kev gamma quanta but no hard quanta with an intensity more than 15% above the 300-kev line intensity. The delayed spectrum for 300-

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keV gamma quanta shows that they coincide with 150, 350, and 500-keV quanta. The above measurements proved the assumption that the 300-keV transition occurs above the isomeric level. Refs. 2 and 3 showed the presence of an isomeric level above the 175-keV transition. By analysing the delayed-coincidence spectrum it was established that 175-keV quanta coincide with the 155-keV quanta. Delayed-coincidences have not been found with 243-keV quanta, neither at the delay of these quanta nor at the delay of the quanta of the above mentioned spectrum. All this indicates that this transition does not occur above the isomeric level. The 243-keV gamma transitions and the 175-keV transitions are not in a prompt cascade since no 243-keV quanta have been established during tests with delayed coincidences when the 155-keV quanta had been delayed and the coincidences had been recorded by means of a total spectrum. The authors state that they have been successful in finding a 108-243-keV cascade which occurs between the known 352-keV level and the ground state of Eu^{151} . The 243-keV level is introduced therefore but it is mainly occupied by X-capture in Cd^{151} . V. A. Sergiyenko is mentioned. There are 10 figures and 7 references: 5 Soviet-bloc.

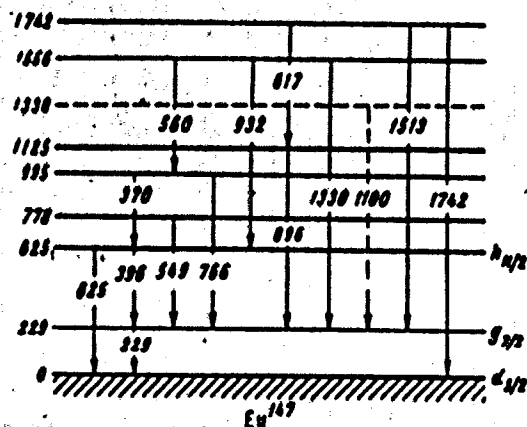
ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe Akademii nauk
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SSSR (Institute of Physics and Technology imeni A. P. Ioffe
of the Academy of Sciences USSR)

Fig. 6



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BERLOVICH, E.Ye.; KLEMENT'YEV, V.N.; KRASNOV, L.V.; NIKITIN, M.K.

Gamma-transitions in the ^{146}Sm nucleus. Zhur. eksp. i teor. fiz.
40 no.1:375-377 Ja '61. (MIRA 14:6)

1. Leningradskiy fiziko-tekhnicheskii institut AN SSSR.
(Gamma rays) (Samarium)

SOV/137-59-5-9863

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 5, p 57 (USSR)

AUTHORS: Tarashchuk, N.T., Klement'yev, V.V., Danilin, V.I., Lapshova, M.P., Lisov, I.V.

TITLE: Smelting Chrome-Nickel Steels¹ in Open Hearth Furnaces With the Use of Clotted Nickel Monoxide 2

PERIODICAL: Stalindr. prom-st' (Sovnarkhoz Stalindr. ekon. adm. r-na), 1958, Nr 2 - 3, pp 25 - 28

ABSTRACT: Clotted Ni monoxide was used instead of granulated Ni in Cr-Ni steel smelting in 50-ton open-hearth furnaces of the "Krasnyy Oktyabr" plant. Clotted Ni monoxide was added to the charge or during the refining stage in an amount of 1,000 to 1,800 kg per smelt. The smelting process was characterized by intensified boiling, particularly during the first 10 minutes after addition of Ni monoxide. Assimilation of Ni, already 5 minutes after its addition, was 98.5% on the average; the rate of burning-out of C was 0.38% per hour. If Ni monoxide was added to the refining pool, the smelting time was reduced by 33 minutes; ✓

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SOV/137-59-5-9863

Smelting Chrome-Nickel Steels in Open Hearth Furnaces With the Use of Clotted Nickel Monoxide

and the bubbling and final stage by 28 minutes. If the monoxide was added to the charge, the smelting time did not change. The addition of Ni monoxide instead of granulated Ni did not affect the mechanical properties, the degree of anisotropy, the macrostructure, the slatiness, and flake sensitivity of the steel. The prime cost of the steel was reduced. ✓

S.I.

Card 2/2

KLEMENT'YEV, V.V.; ZAVODCHIKOV, A.N.; DUDIN, R.N.; MIKHAYLOV, V.I.;
GANOVA, T.N.

Roasting of nickel matte in a fluidized bed furnace. TSvet. met.
36 no.6:29-34 Je '63. (MIRA 16:7)

(Nickel—Metallurgy) (Fluidization)

21(3)

AUTHORS:

SOV/48-23-2-2/20
Grigor'yev, Ye. P., Zolotavin, A. V., Klement'yev, V. Ya.
Sinitayn, R. V.

TITLE:

Determination of the Relative Intensities and Conversion Coefficients of Transitions Produced During the Decay of Se^{75}
(Opredeleniye otnositel'nykh intensivnostey i koeffitsiyentov konversii perekhodov, vznikayushchikh pri raspade Se^{75})

PERIODICAL:

Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959,
Vol 23, Nr 2, pp 159-184 (USSR)

ABSTRACT:

At the beginning, the authors report on data obtained up to now on the $Ge^{75} \rightarrow As^{75} \leftarrow Se^{75}$ decay, and the spectrometers, sources and conditions of measurement of the investigations explained in this paper are described as follows: the magnetic spectrometer used for measurement had a double focusing, and the half width of electron lines in the spectrometer conditioned by the apparatus amounted to 0.4%. The conversion spectrum was measured in the presence of radiation sources of different thickness: 0.05, 0.25, 5 mg/cm². For the purpose of determining the spectral lines of photoelectrons thin targets of silver, lead, bismuth and other elements were used. The determinations covered 1) the relative intensities L_{γ} of the spectral lines

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Determination of the Relative Intensities and Conversion Coefficients of
Transitions Produced During the Decay of Se^{75}

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of photoelectrons of Se^{75} ; the authors recorded the whole spectrum with Bi-target $\sigma = 0.1 \text{ mg/cm}^2$, the energy range up to $\sim 100 \text{ keV}$ with Ag-targets $\sigma = 0.25-0.03 \text{ mg/cm}^2$, the range up to 401 keV inclusive with As-target, $\sigma = 0.25 \text{ mg/cm}^2$, the line 572 keV with particularly thick Ta, Pb, and Bi-targets up to $\sigma = 80 \text{ mg/cm}^2$ (Figs 2-6). The energies obtained and the corresponding I_γ are listed in table 1. The intensity of the transition $h\nu = 265 \text{ keV}$ was assumed as a reference quantity equal to 100. For comparison, tables 1 and 2 contain also data obtained by other authors. For the purpose of checking the spectral sensitivity of the apparatus the relative intensities of γ -lines of Sb^{124} were compared with the values mentioned in paper (Ref 47), in which investigations were carried out by means of the calibrated standard γ -spectrometer "Elotron" (Tables 4, 5 and table 6 give a comparison with Tb^{160}). A possible error in the determination of $I_\gamma < 15\%$ results from the comparisons. 2) The authors measured the electron spins of internal conversions of Se^{75} . They obtained 26 conversion lines produced by 12 transitions in As^{75} (Figs 7-12),

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Determination of the Relative Intensities and Conversion Coefficients of
Transitions Produced During the Decay of Se^{75}

SOV/48-23-2-2/20

among which there are also the lines of Auger electrons K-LL, K-LM, K-MM. Their energies, intensities I_γ and origin are listed in table 7. According to a comparison with data obtained by other authors the best accordance was found with Schardt and Welker (Ref 10). For the purpose of determining the conversion coefficients from I_γ and I_K two methods were applied:

a) from a comparison of the experimental values I_K/I_γ with the conversion coefficients of transitions 265, 280, 305, 401 keV according to Bashilov and Il'in (Ref 45)(Table 8); the mean value $\alpha_K/(I_K/I_\gamma)$ was used for determining the conversion coefficients of the other transitions; b) from the E1 transition of the transitions 121, 235, 401 keV the conversion coefficients of the other transitions were determined in the above-mentioned way. The values obtained in both ways agree well with one another. On the basis of a comparison between the theoretical and experimental values α_K the authors determined the multipole order of all transitions obtained (Table 9). According to the analysis of the scheme of As^{75} decay by means of Coulomb excitation and inelastic neutron

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Determination of the Relative Intensities and Conversion Coefficients of
Transitions Produced During the Decay of Se^{75}

SOV/48-23-2-2/20

scattering the authors determined the existence of the excitation states $\sim 200, 281, 574, 780, 814, 1020, 1250, 1633$ kev. The spectrum of Ge^{75} was studied by the method of $\beta^- - \gamma^-$ coincidence and the levels 199, 265, 477, 628 kev were obtained (Table 10). The γ -spectrum and γ - γ -coincidence from papers (Refs 10 and 25) are given in table 11. Furthermore, the quantum characteristics of the ground state As^{75} , Se^{75} , Ge^{75} were determined to be $3/2^-, 5/2, 1/2^-$. The quantum characteristics of the levels 265, 280 and 401 kev were determined as well. The intensity equilibrium in the Se^{75} decay is mentioned in tables 13, 14. The quantities $lg \pi$ are in accordance with selection rules. According to these results the scheme of the $Ge^{75} \rightarrow As^{75} \leftarrow Se^{75}$ decay is established (Fig 13). Similarities of parity with neighboring nuclei are contained in table 15. On the basis of the one-particle model the authors give two possible explanations of the ground state of the nuclei $^{34}_{41}Se^{75}$ and $^{33}_{42}As^{75}$ as well as of the levels of As^{75} at 199, 256, 280, 305 and 401 kev in table 17. There are 13 figures, 17 tables, and 55 references, 19 of which are Soviet.

Card 4/5

Determination of the Relative Intensities and Conversion Coefficients of
Transitions Produced During the Decay of Se^{75}

SOV/48-23-2-2/20

ASSOCIATION; Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo
gos. universiteta im. A. A. Zhdanova
(Scientific Research Institute of Physics of Leningrad State
University imeni A. A. Zhdanov)

Card 5/5

VORONKOV, A., inzh.; KLEMENT'YEV, Yu., inzh.

Under the banner of our country. IUn.tekh. 6 no.12:14-16 D '61.
(MIRA 14:12)

(Merchant marine)

~~KLEBENT'YEV, Yu. Y.~~

Asphalt concrete curbs. Avt. dor. 21 no.2:31 F '58. (MIRA 11:2)
(United States--Curbstones)

KLECHET'YEV, Yu. V., 1msh.

Using calculating machines in road construction. Avt. dor. 21
no. 7:30 J1 '58.

(Electronic calculating machines)

(MIRA 11:8)

BULUSHEV, Yu.A.; GLUKHOV, N.I.; KLEMENT'YEV, Yu.V.; MAKHYEV, A.A.;
SHAKHOVSKOY, Ye.P.; KNYLIN, A.D., red.; KOLESNIK, D.N., red.;
YAROVA, L.V., red.isd-va; TIKHONOVA, Ye.A., tekhn.red.

[Collection of international conventions, treaties, agreements
and regulations concerning problems in commercial navigation]
Sbornik mezhdunarodnykh konventsi, dogovorov, soglashenii i
pravil po voprosam torgovogo moreplavaniia. Moskva, Isd-vo
"Morskoi transport," 1959. 474 p. (MIRA 12:5)

1. Russia (1923- U.S.S.R.) Ministerstvo morskogo flota.
(Maritime law)

KLERENT'YEV, S. I.

Klerent'yev, S. I. "On linear functions in semi-regulated space", Uchen. Zapiski (Tomskiy gos. un-t im. Kuybysheva), No. 11, 1948, p. 46-52, (Continued from No. 5, 1947).

So: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 12, 1949).

Klement'ev, Z. I.

Klement'ev, Z. I. "The self-conjugation of linear self-regular spaces", Uchenye zapiski (Tomskiy gos. un-t im. Kuybysheva), No. 11, 1948, p. 53-56.

So: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 12, 1949).

KLEMENT'YEV, Z. I.

Translation from: Referativnyy Zhurnal, Matematika, 1957, Nr 1, p. 39 (USSR) 44-1-269

AUTHOR: Klement'yev, Z. I.

TITLE: On the Compactness of a Family of Completely Additive Functions
(O kompaktnosti semeystva vpolne additivnykh funktsiy)

PERIODICAL: Uch. zap. Tomskogo un-ta, 1955, Nr 25, pp. 9-12.

ABSTRACT: Let R be an abstract set, $S = \{e\}$ a countable system of subsets R , whereupon $R \in S$, and if $e \in S$, then also $R - e \in S$. Let T be the least Borelian field containing all sets of system S . The family \mathcal{P} of completely additive functions $f(e)$, which are defined on T , is called uniformly additive if $f(e_n + e_{n+1} + \dots) \rightarrow 0$ is uniform with regard to $f \in \mathcal{P}$ at $n \rightarrow \infty$ for all sums $e_1 + e_2 + \dots$ of nonintersecting sets from T . The following theorem is proved: For compactness of the family \mathcal{P} (in the sense of convergency for any $e \in T$) it is necessary and sufficient that it be uniformly bounded and uniformly additive. This theorem was proved by the reviewer under less general assumptions with regard to T (Matem. sb., 1947, 20 (62), Nr 2, pp. 317-329).

Card 1/1

V. M. Dubrovskiy

Klement'yev, Z.I.

44-1-291

TRANSLATION FROM: Referativnyy zhurnal, Matematika, 1957, Nr. 1,
p. 43 (USSR)

AUTHOR: Klement'yev, Z.I.

TITLE: On One Condition FOR the Compactness of a Family
of Continuous Functions (Ob odnom uslovii kompaktnosti
semeystva nepreryvnykh funktsiy)

PERIODICAL: Uch. zap. Tomskogo un-ta, 1955, Nr. 25, pp. 13-14

ABSTRACT: The following theorem is proven: In order that the
family of $\{x(t)\}$ continuous functions, set at
 $[a, b]$ be compact, it is necessary and sufficient that
each sequence $\{x_n(t)\} \subset \{x(t)\}$ of the function

$$X(t) = \sup \{x_n(t)\},$$

$$Q(t) = \lim_{n \rightarrow \infty} x_n(t);$$

$$X(t) = \inf \{x_n(t)\}, \psi(t) = \lim_{n \rightarrow \infty} x_n(t)$$

be continuous.

V.M. Dubrovskiy

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КЛЕМЕНТЬЕВ, Э.И.

Conditions of representability of a continuous function
with values in abstract functional space in the form of
the Fourier-Stieltjes integral. Trudy TGU 144:13-21 '59.
(MAMA 13:6)

1. Kafedra matematicheskogo analiza Tomskogo gosudarst-
vennogo universiteta im. V.V. Knybysheva.
(Functional analysis)

16.4600

22422
S/044/61/000/001/012/013
0111/0222

AUTHOR: Klement'yev, Z.I.

TITLE: On conditions under which a continuous function with values in an abstract functional space is representable by a Fourier-Stieltjes integral

PERIODICAL: Referativnyy zhurnal, Matematika, no.1, 1961, 86, abstract 1B 413. ("Tr.Tomskogo un-ta", 1959, 144, 13-21)

TEXT: Let Y be a K^+ -space of countable type (L.V.Kantorovich, B.Z.Vulikh, A.G.Pinsker, Funktsional'nyy analiz v poluporyadokhnykh prostranstvakh [Functional analysis in semiordered spaces] Moscow-Leningrad, 1950). It is shown that every function $\lambda(t)$ with values in the space Y which is continuous on $[-T, T]$ is representable by the

Stieltjes integral $\lambda(t) = \int_{-\infty}^{\infty} e^{it\omega} d\omega(u)$ then and only then if for every n , every $t_k \in [-T, T]$ and every real number c_k the inequality

$$\left| \sum_{k=0}^{n-1} c_k \lambda(t_k) \right| \leq \gamma_0 \sup_{-\infty < x < \infty} \left| \sum_{k=0}^{n-1} c_k e^{it_k x} \right|$$

Card 1/2

EFF

.R93024

Znat' Konkretnuyu Ekonomiku (Understanding Applied Economics, by) V.
Lomonosov I A. Klement'yeva.

Moscow, Moskovskiy Rabochiy, 1957.

59P

MEA

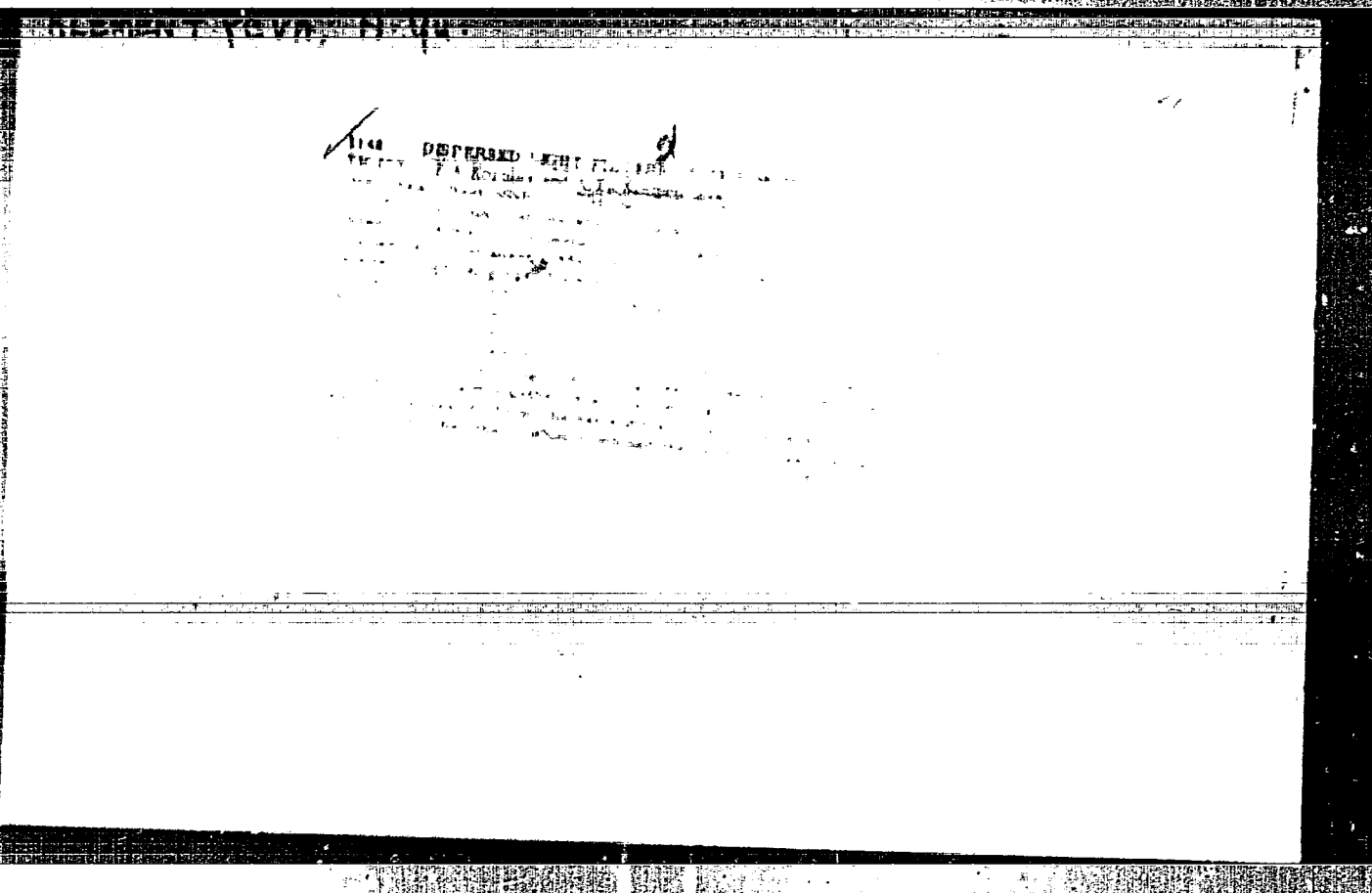
А. С. М. И. 1944, 7. 1.

BOGOLYUBSKIY, N.; BORISOV, S.; GRIGOR'YEV, N.; GUSAROV, M.; GUSEV, L.;
ZHAROV, S.; ZHETVIN, N.; ZALOGIN, S.; ZOLOTOV, G.; INOZEMTSEV, N.;
KLEMENTIYENKO, A.; KOMAROV, A.; KOSMACHEV, V.; LAPTEV, V.; LOMONOSOV, V.;
MIKHAYLOV, A.; NOVIKOV, I.; PERTSEV, M.; PROKOPOVICH, P.; ROMANOV, I.;
RUBLINSKAYA, R.; SVIRIDOV, G.; SOTNIKOV, G.; SUBBOTIN, A.; TURTANOV, I.;
CHESNOKOV, S.; CHICHKIN, K.; CHIKHANOV, I.

Grigori Markelovich Il'in; an obituary. Metallurg 3 no.10:36 0 '58.
(MIRA 11:10)
(Il'in, Grigori Markelovich, 1894-1958)

KLEMENT'YENY, A.I.; SKOROKHODOV, M.A.; Prinimeli uchastiye: ALEKSANDROV, O.P.;
BABUN, P.Ya.; BAYBARIN, P.P.; VAYNSHTEYN, TS.Z.; GUSEV, L.V.; ZHETVIN,
N.P.; KONTSEVAYA, Ye.M.; LEVINA, M.M.; NOVLYANSKAYA, K.A.; POD-
VOYSKIY, L.N.; TRUNTSY, D.S.; FLEROV, N.O.; CHIKHACHEV, I.A.; YUROV,
Yu.M.; GUDKOVA, N., red.; YEGOROVA, I., tekhn.red.

[Light over the gate] Svet nad zastavoi. Moskovskii rabochii,
1959. 422 p. (MIRA 12:4)
(Moscow--Metallurgical plants)



KLEMENT'YEVA, A. YU.

USSR/Physics - Dielectric mirrors

Card 1/1 Pub. 22 - 15/54

Authors : Korolev, V. A. and Klement'ieva, A. Yu.

Title : Optical properties of "dielectric mirrors" at an acute angle of light

Periodical : Dok. AN SSSR 100/3, 459-460, Jan. 21, 1955

Abstract : Experiments with the so-called "dielectric mirrors" are described. The experiments were intended to prove the fact that these mirrors can be successfully used for refraction and reflection of not only normally falling light, but also for light falling at an acute angle. Four references: 3 USSR and 1 French (1946-1954). Graphs.

Institution : Moscow M. V. Lomonosov State University

Presented by: Academician A. A. Lebedev, June 22, 1954

KLEMENT'YEVA, A.YU.

KOROL'EV, F.A.; KLEMENT'YEVA, A.YU.

Preparing dielectric mirrors and interference light filters
and studying their optical properties. Vest.Mosk.un.Ser.mat.,
mekh., astron., fiz., khim. 12 no.3:65-73 '57. (MIRA 11:3)

1.Kafedra optiki Moskovskogo gosudarstvennogo universiteta.
(Dielectrics) (Light filters)

83427

S/188/60/000/001/001/010
B019/B056

9.5320

AUTHOR:

Klement'yeva, A. Yu.

TITLE:

An Interference Light Filter for the Ultraviolet Spectral Range

PERIODICAL:

Vestnik Moskovskogo universiteta. Seriya 3, fizika, astronomiya, 1960, No. 1, pp. 23-26

TEXT: The author describes a method she developed for producing dielectric light filters with a narrow transmission band of 25 Å and a reproducibility of the position of 10 Å within the range from 3000 to 4000 Å. These light filters are obtained by evaporation at a pressure from $5 \cdot 10^{-6}$ to $1 \cdot 10^{-5}$ torr, heating being effected by a tungsten heater. During their production, some of the light filters are moved on a circle in a special device, each of them rotating simultaneously round its axis. In this way, light filters are obtained among which there is only very little difference. The optical thickness of the films is checked by observing the intensity changes of the light passing through, which are due to light interferences in the films. Fig. 1 shows a scheme of the device used for

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this purpose. An incandescent lamp is used as a light source for the spectral range from 4000 Å to 3200 Å, and for the spectral range below 3200 Å, a hydrogen lamp is used. The author then names the following compounds together with their refractive indices as being substances suited for such light filters: PbCl_2 , MgF_2 , Na_3AlF_6 , and Sb_2O_3 . By means of the above-described device the author produced light filters from PbCl_2 , which were protected with an MgF_2 film. The light filters consisted of two eight-layer mirrors provided alternately with $\lambda/4$ lamellas made from PbCl_2 - MgF_2 and intermediate layers of MgF_2 with a thickness of $\lambda_m/2$. As shown by Fig. 2, such a dielectric light filter has a very narrow transmission band in the ultraviolet region with a width of $\Delta\lambda_{1/2} = 25 \text{ Å}$ at transmissions of a maximum of 60%. In the visible region, such light filters have somewhat broader transmission bands. There are 2 figures and 3 non-Soviet references.

ASSOCIATION: Kafedra optiki (Chair of Optics)

SUBMITTED: April 29, 1959

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24,3200

S/170/60/003/01/09/023
B022/B007

AUTHORS: Korolev, F. A., Klement'yeva, A. Yu., Meshcheryakova, T. F.

TITLE: Dielectric Multilayered Interference Light Filters²¹ for the Visual and Near Infrared Region of the Spectrum

PERIODICAL: Inzhenerno-fizicheskiy zhurnal²¹, 1960, Vol. 3, No. 1, pp. 55 - 61

TEXT: In the present paper the method of producing dielectric interference light filters having a position of the maximum of the light transmissivity band λ_m of the light filter given with an accuracy of $\pm 10 \text{ \AA}$ and a sample surface uniformity of the order of $5 - 10 \text{ \AA}$, as well as the apparatus used, is described. The device for the production of dielectric coatings consists of a metal plate, the pre-vacuum pump RVN-20¹, the high-vacuum unit VA-05-01², and the diffusion pump of the type VN-5³. The vacuum is measured by means of manometer tubes of the types LT-2⁴ and LM-2⁵ and the standard vacuumeter of the type VIT-1⁶. Also the motor of the type UMT-20⁷ is used. Control of the multilayer light filter with respect to transmissivity is carried out by means of the device schematically represented (Fig. 1), where, among other things, a type PS-10⁸ galvanometer with scale, having a sensitivity of 10^{-9} a/mm , is used. For the determination of the

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Dielectric Multilayered Interference Light Filters
for the Visual and Near Infrared Region of the
Spectrum

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ratio between the coating thickness and arbitrary point P and the thickness of the coating in the center, relation (3) is given. The dependence of coating thickness on the distance from the center a of the rotating sample is graphically represented (Fig. 2). The authors further found that when vaporizing on the metal coatings for light filters the main factors are the temperature of the vaporizer and the height of the vacuum, however, the influences exerted by these factors are independent of the nature of the material vaporized on. Fig. 3 gives the light transmittance bands of the dielectric light filters of I, II, and III order, which consist of ZnS and cryolite-layers. The characteristics of the light filters were measured in the spectrophotometer of the type SF-2M¹ in the visible region of the spectrum, and in the devices of the types IK9-11² and SF-4³ in the near infrared of the spectrum. Also after having been used for two years, the accuracy of the light transmittance bands of the said light filters amounted to several Angstroms. There are 3 figures and 8 references, 4 of which are Soviet.

ASSOCIATION: Gosudarstvennyy universitet im. M. V. Lomonosova, g. Moskva
(State University imeni M. V. Lomonosov, City of Moscow)

Card 2/2

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S/051/60/009/005/011/019

F201/E191

AUTHORS:

Korolev, F.A., Klement'yeva, A.Yu., and
Meshecheryakov, T.P.

TITLE:

Interference Light Filters with a Transmission Band
of 1.5 Å Width

PERIODICAL: Optika i spektroskopiya, 1960, Vol.9, No.5, pp 648-652

TEXT:

Interference filters with a narrow transmission band (20-30 Å) were reported in earlier papers (Refs 1, 2). Later the transmission band was narrowed down to 8-10 Å in the middle of the visible region. In some applications an even narrower transmission band is required. The present paper gives a theoretical design calculation for interference filters with very narrow (1-3 Å) transmission bands. This theory was employed to produce multilayer dielectric light filters with transmission bands from 13 Å (55% transmission) to 1.5 Å wide (15% transmission). The transmission maxima occurred in the region 5600-5900 Å. These filters were made by alternate evaporation of ZnS and cryolite in vacuum. Their structure is given in column 2 of Tables 1 and 2, where H denotes a $\lambda/4$ layer with a high refractive index

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KLEMENT'YEVA, A. Yu.

Interference light filters for the ultraviolet region of the
spectrum. Vest. Mosk un. Ser. 3/Fiz., astron 15 no.1:23-26 '60.
(MIRA 13:10)

1. Kafedra optiki Moskovskogo universiteta.
(Light filters) (Ultraviolet rays)

KLEMENT'YEVA, L. B.

COUNTRY : USSR
 CATEGORY : General Biology. B
 Individual Development. Embryonal Development.
 ABS. JOUR. : RZhBiol., No. 5, 1959, No. 19096
 AUTHOR : Ryshikh, G. N.; Klement'yeva, L. B.
 INST. : Omsk State Pedagogical Institute.
 TITLE : The Effect of Periodic Chilling on the
 Embryonal Development of Chicks.

ORIG. PUB. : Uch. zap. Omskogo gos. ped. in-ta, 1957, vyp.
 6, 97-103

ABSTRACT : The effect of periodic chilling upon the growth
 and development of chicken embryos was investi-
 gated. Eggs of various incubation stages were
 placed for 45 min. daily into a refrigerator
 (at 2-3°C). It was found that periodic chilling
 from the 2nd until the 8th day of incubation
 increases the percentage of hatched chicks, and
 has a positive influence on the formation of
 blood cells (erythrocyte size and percentage of
 granular leukocytes increase). The chicks de-
 veloped normally during their first months of

Card: 1/2

GLUZBARG, B.Ye.; KLEMENT'YEVA, L.S.

Calcification of pulmonary sequestra. Sov. med. 27 no.1:
135-137 Ja '64. (MIRA 17:12)

1. Leningradskaya basseynovaya klinicheskaya bol'nitsa imeni
Chudnovskogo (glavnyy vrach A.L. Matusov).

KLEMENT'YEVA, L.S.

Limitations and possibilities of large-frame fluorography in
the diagnosis of pulmonary and cardiovascular diseases.

Trudy LSCMI 53:24-52 59.

(MIRA 13:10)

1. Kafedra rentgenologii s meditsinskoy radiologiyey Leningrad-
skogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav.
kafedroy - prof. B.M. Shtarn).

(LUNGS--DISEASES) (CARDIOVASCULAR SYSTEM--DISEASES)
(DIAGNOSIS, FLUOROSCOPIC)

KLEMENT'YEVA, L.S.

Possibilities of large-frame fluorography in the diagnosis of
silicosis. Trudy ISGM 53:103-110 '59. (MIRA 13:10)

1. Kafedra rentgenologii s meditsinskoy radiologiyey Leningrad-
skogo sanitarno-gigiyenicheskogo meditsinskogo instituta (sav.
kafedroy - prof. B.M. Shtern).
(LUNGS—DUST DISEASES) (DIAGNOSIS, FLUOROSCOPIC)

KLEMENT'YEVA, N.

CZ Cassiopeias. Per.svezdy 14 no.1:64-65 Ja '62. (MIRA 17:3)

1. Otdel peremennykh zvezd Moskovskogo otdeleniya Vsesoyuznogo
astronomo-geodezicheskogo obshchestva.

IN'KOVA, N.M.; KLEMENT'YEVA, N.F.

Separate determination of calcium and magnesium in lime carbonate.
Khim.i tekhn. topl.i masel 6 no.8:64-65 Ag '61. (MIRA 14:8)

1. Orenburgskiy Neftemaslozavod.

(Calcium—Analysis)
(Magnesium—Analysis)
(Calcium carbonate)

MAKAROV, P.T.; IN'KOVA, N.M.; KLEMENT'YEVA, N.F.

Determination of phosphorus in heavy petroleum products
and additives by means of the volumetric method during
ashing. Khim. i tekhn. topl. i masel 8 no.5:65-66 My '63.
(MIRA 16:8)

S/065/62/000/010/004/004
E075/E136

AUTHORS: In'kova, N.M., Makarov, P.T., and Klement'yeva, N.F.

TITLE: Determination of sulphur in heavy petroleum products and additives by the iodometric method

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no.10, 1962, 60-62

TEXT: Deficiencies in the determination of S in heavy petroleum products by reacting barium chromate with sulphate ions were overcome by using BaCl_2 and potassium chromate solutions instead of solid barium chromate, which is not soluble in water. This modification reduced the time of S determination by a factor of 5 to 6 compared with a standard gravimetric barium sulphate method ГOCT 1431-49 (GOST 1431-49). In the modified method an oil sample is ashed which converts any Ba present into BaCO_3 and sulphur into Na_2SO_4 . The latter is extracted with hot water and the extract made up to 100 ml. A part of the solution is treated with a standard BaCl_2 solution and the excess barium treated with an excess of standard potassium chromate solution in weakly

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IN'KOVA, N.M.; MAKAROV, P.T.; KLEMENT'YEVA, N.F.

Determining the sulfur in heavy petroleum products and additives
by the iodometric method. Khim. i tekhn. topl. i masel 7 no.10:
60-62 0'62 (MIRA 17:7)

1. Orenburgskiy neftezaslovod.

IL'INA, N.V.; KLEMENT'YEVA, O.I.

Phase composition of heatproof magnesite-chromite refractories
after their service in a cement kiln. Trudy Oiprotsement
no. 21:56-72 '59. (MIRA 13:12)
(Refractory materials)

KLEMENT'YEVA, S., inshonor [deceased]

Homemade radiometer. IUn.tekh.no.1:64-66 S '56.
(Radiometer)

(MIRA 10:3)

KOPMAN, Sh.; KLASCHUT'YNYA, T.

New equipment has been installed. Mias.ind.SSSR 30 no.1:28
'59. (MIRA 12:4)

1. Vitebskiy myasokombinat.
(Vitebsk--Meat industry--Equipment and supplies)

ESTRIN, M.I., kand.tekhn.nauk; KLEMENT'YEVA, Y.O., inzh.

Operations of some foreign rotary and milling snow plows. Stroi. i
dor. mashinostr. 3 no.9:33-36 S '58. (MIRA 11:10)
(Snow plows)

SPĖKHOVA, S.M., inzh.; KLEPENT'YEVA, V.S., inzh.

The problem of rapid determination of the slag content in
slag portland cement by the ammonium solubility method.

Nauch. soob. NIISementa no.12:40-42 '61.

(MIRA 15:7)

(Slag cement)

(Ammonium chloride)

LOPATNIKOVA, I.Ya., kand. tekhn. nauk; GRIKEVICH, L.N., inzh.; KLEMENT'YEVA,
V.S., inzh.

Petrographic studies of synthetic barium-manganese slag. Trudy
NIISement no.19:98-106 '63. (MIRA 17:11)

KLEMENT'YEVA, Ye. K.

USSR/Chemical Technology. Chemical Products and Their Application -- Food industry,
I-28

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 6739

Author: Klement'yeva, Ye. K.

Institution: None

Title: Experimental Freezing of Hot-Smoked Fish

Original

Publication: Ryb. kh-vo, 1956, No 6, 26-28

Abstract: The Kerch fish combine has conducted, in 1954 and 1955, experiment work on freezing and cold storage of hot-smoked herring and horse mackerel. The fish was packed in No 1 boxes and stacked in a room maintained at -17 to -18°, where it was kept for 10 days and longer. After 2 days the fish reached a temperature of -6°, which decreased gradually thereafter to -7° and -8°. On the 10th day the quality of herring had not deteriorated, and on the 37th faint indication of oxidation of the fat under the skin became apparent. Mackerel retained its quality for one month. The experiments were repeated at Don-Kuban'

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USSR/Chemical Technology. Chemical Products and Their Application -- Food Industry,
I-28

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 6739

Abstract: experiment station at Azherniro, with hot-smoked anchovies packed in cardboard boxes of 350 g capacity, stacked in crates. The anchovies were frozen and kept at -12° . After two months of storage appearance and taste of the anchovies had undergone no change.

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KLEMENT'YNA, S.O. inzh.

In enterprises of the Ivanovo Economic Council. Izobr. v SSR 3
no.2134-35 F '58. (MIRA 11:3)
(Ivanovo--Efficiency, Industrial)

ILLINICZ, Jerzy; KLEMENTYS, Marian

Purification of phenol sewage. Problemy proj hut anszyn 12
no.10:304-310 0 '64.

1. Biprohut, Warsaw Branch.

KLAMINTES, Mieczyslaw, Mgr. inz. (Bytom, Poland); K. HUBALYNSKI, Alexander,
Mgr. inz. (Bytom, Poland); BRON, Gerard, inz. (Bytom, Poland).

Technological development and its effect on labor productivity
in copper mining in Poland. Rudy 12 no. 7/8:242-245 J1-Ag 1962
(MIRA 17:13)